

What is claimed is:

1. A method of forming device isolation structures in an embedded semiconductor device comprising the steps of:
5 providing a semiconductor substrate having a first area in which ions are implanted;
forming a first device isolation region through partial oxidation in the first area;
forming a first type well with deep junction by diffusing
10 the ions in the first area;
forming a second device isolation region with a trench in a second area of the semiconductor substrate;
forming a first type well with shallow junction in peripheral regions of the second device isolation
15 structure and a region between the first device isolation structure and the second device isolation structure;
forming a second type well with shallow junction in peripheral regions of the first device isolation
20 structure and a region of the second device isolation structure; and
defining first and second type active regions on the semiconductor substrate.
2. The method as defined by claim 1, wherein the
25 diffusion of ions is simultaneously conducted when the partial oxidation is performed.
3. The method as defined by claim 1, wherein the first type well is an n-type well and the second type well is a p-type well.